Documentation for Q2 Kernel Memory Copy

By – Dhvanil Sheth 2021040

Made a system call called kernel_2d_memcpy () that copies the source matrix from the user of variable size to a source matrix , both of which have the same size and the values parsed are of floating point numbers.

Used __copy_from_user() and __copy_from_user() that stores the source matrix to a buffer and then copies the buffer to the source destination.

We made changes in the Makefile of the new custom linux and also made changes in the .tbl folder of arch/x86/entry/syscalls/syscall_64.tbl by registering the new system call and calling the Makefile.

Have implemented a test code to ensure that the system call functions properly and copies the floating-point matrix from the source to the destination which successfully returns the value 0.

```
[Dhvanil part2]# make clean make make run
rm twod_test
gcc -o twod_test twod_test.c
make: 'make' is up to date.
./twod_test
User array before copy
1.10 2.20 3.30
4.40 5.50 6.60
Destination array before syscall
0.00 0.00 0.00
0.00 0.00 0.00
Destination array after syscall
1.10 2.20 3.30
4.40 5.50 6.60
System call returned 0
[Dhvanil part2]#
```